



FIREARM-RELATED FATALITIES

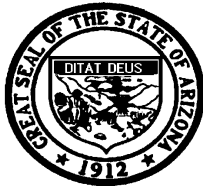
Arizona, 1989-1999



Public Health Services

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FIREARM-RELATED FATALITIES, ARIZONA, 1989-1999

by

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April 2001

ACKNOWLEDGMENTS

Grateful acknowledgement is made to the staff members of the
Arizona Department of Education Print Shop.

Special thanks and acknowledgement are extended to Roberta Durfee of
the Bureau of Public Health Statistics for proofreading the typescript.

All surviving errors of fact are ours.

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PURPOSE

The purpose of this report is to provide information on firearm-related deaths among Arizona residents. The data for 1999 are placed in a temporal context by comparison with the data for the preceding 10 years.

METHODS AND SOURCES

In this report, firearm-related fatalities are defined according to the ICD-9* as an underlying cause of death coded as:

E922.0 - E922.9 (*unintentional or accidental injury caused by firearms*),
E955.0 - E955.4 (*suicide by firearms*),
E965.0 - E965.4 (*homicide by firearms*),
E970 (*fatal injury due to legal intervention by firearms*) and
E985.0 - E985.4 (*firearm-related fatalities which are undetermined whether they were purposely or accidentally inflicted*).

* **International Statistical Classification of Diseases, Injuries and Causes of Death, ICD-9 Ninth Revision.** Geneva: World Health Organization, 1977.

Data on the number and characteristics of firearm-related fatalities among Arizona residents were obtained from the death certificates filed with the Arizona Department of Health Services.

Population denominators for Arizona residents, used to calculate rates, are projections from the Population Statistics Unit in the Arizona Department of Economic Security (DES; data for 1989 and 1993 to 1999) and the U.S. Census Bureau (data for 1990 and data by ethnic group for 1999). Detailed population data by gender, age and county were unavailable for 1991 to 1992. In order to obtain the population denominators for these two years, the 1990 percentages of population breakdowns (or census shares) by age group and gender were applied to 1991 and 1992 total state or county population estimates published by the DES.

SELECTED FINDINGS

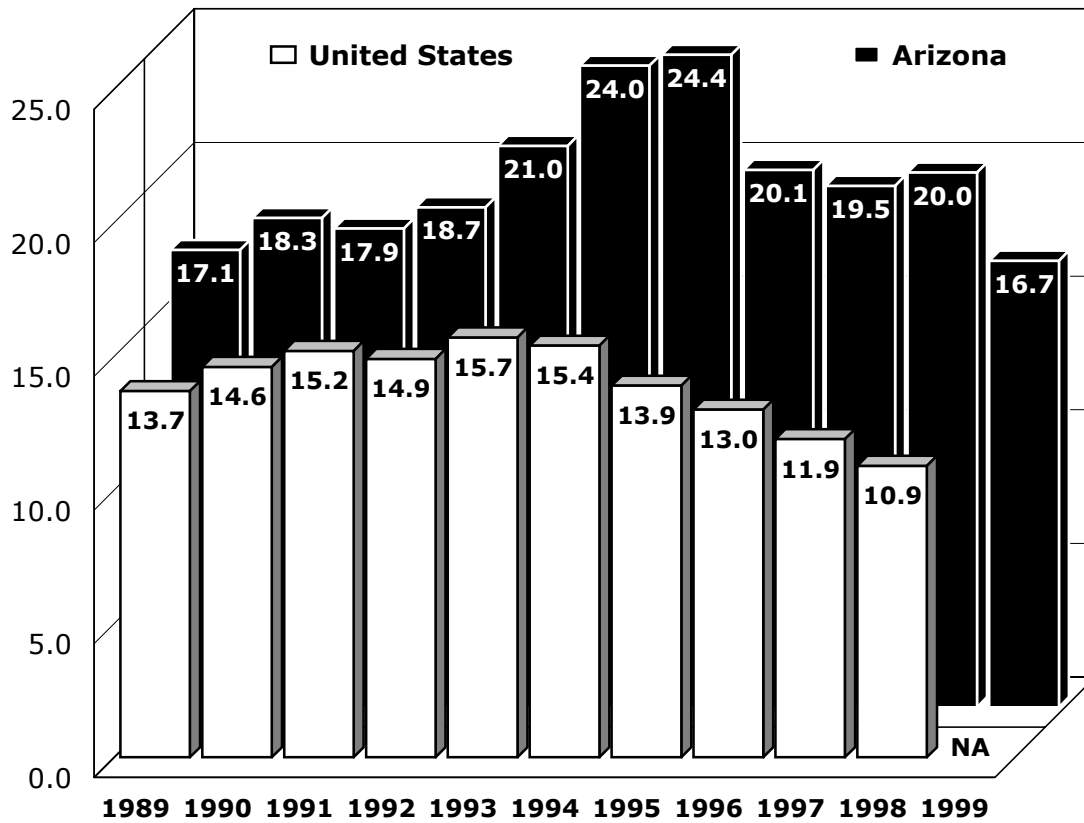
This section presents some illustrative findings contained in the figures and tables of the report. It is not intended to be an exhaustive analysis of the tabulated data. When possible, United States data are given in order to provide a comparative context for the Arizona firearm-related mortality statistics.

- ❖ Firearms rank second, surpassed only by motor vehicles, as the leading cause of injury mortality both nationwide and in Arizona. Firearm-related injuries and motor vehicle collisions accounted for more than 5 out of every 10 (53 percent) injury deaths in Arizona in 1999.
- ❖ Relative to people nationally, Arizonans were more likely to die from firearm injuries in each year from 1989 to 1999 (**Figure 1, Table 1**).
- ❖ The number of firearm-related fatalities decreased in Arizona by 10.7 percent, from 933 in 1998 to 833 in 1999 (**Table 2**).
- ❖ The Arizona age-adjusted firearm-related mortality rate decreased by 16.5 percent from 20 firearm-related deaths per 100,000 persons in 1998 to 16.7/100,000 in 1999 (**Table 1**). The latter was the lowest firearm-related mortality rate in the eleven-year period from 1989 to 1999.
- ❖ The 1999 Arizona firearm-related mortality rate was 19.3 percent higher than the **Arizona 2000** health objective of 14 weapon-related deaths per 100,000 population.
- ❖ While fourth digit ICD codes are available to identify the type of firearm that was used, the vast majority of weapon types are coded on death certificates as "other and unspecified" (**Table 3**).
- ❖ All but a small fraction of firearm-related fatalities are intentionally inflicted. Among 833 firearm-related deaths in 1999, 7 (or 0.8 percent) were classified as unintentionally inflicted firearm injuries, 495 (59.4 percent) as suicides, 303 (36.4 percent) as homicides, 21 (2.5 percent) were fatal injuries inflicted by the police or other law-enforcement agents, and 7 (0.8 percent) were undetermined whether the injury was accidentally or purposely inflicted (**Figure 2**).
- ❖ The firearm-related death rate among Blacks (29.0/100,000) was the highest among ethnic groups in Arizona in 1999. It exceeded the corresponding rates for Asian, American Indian, White non-Hispanic, and Hispanic residents of Arizona by 339, 120, 97 and 26 percent respectively (**Figure 3**).
- ❖ Among White non-Hispanics, firearm-related fatalities predominantly were a result of suicide (79.7 percent, **Figure 4**). In contrast, the majority of deaths from firearms were incurred in acts of homicide among Blacks (76.5 percent) and Hispanics (63.7 percent). Among American Indians, firearm-related fatalities were more likely to be incurred in acts of homicide (48.6 percent) than suicide (40 percent).
- ❖ Firearm-related fatalities among ethnic minorities occurred at younger ages compared to firearm-related deaths among White non-Hispanics. Eight out of ten (83.5 percent) of 1999 firearm-related deaths for all ethnic minority groups combined were less than 45 years old, while only 46 percent of firearm-related deaths among white non-Hispanics were this young (percentages based on data in **Table 6**).

- ❖ The 1999 mortality rate from firearms among males (28.4/100,000) was 4.6 times greater than the rate of 6.2/100,000 among females (**Figure 5, Table 8**). Particularly high gender ratios in firearm mortality were evident in 1999 for Hispanics (male rate of 40.3 was 6.8 times the rate of 5.9 for females (**Figure 9**)).
- ❖ Annual firearm-related homicide death rates among Arizona residents were at least 33 percent lower than the firearm-related suicide death rates from 1989 to 1999 (**Figure 6**).
- ❖ In each year from 1991 to 1997, annual firearm-related death rates among teenagers 15-19 years of age were the highest among the age groups. In 1999, as in 1998, the highest firearm-related death rates were among Arizonans 20-44 years old (**Table 1**).
- ❖ Between 1997 and 1999, the total firearm death rate among teenagers 15-19 years old decreased by 39.4 percent from 37.3 to 22.6 fatalities per 100,000 persons in this age group in 1999 (**Table 1**). The firearm-homicide rate decreased for the fourth consecutive year from 27.7/100,000 in 1995 to 12.9/100,000 in 1999 (**Figure 7, Table 15**). At the same time, the rate for firearm-suicide decreased by 54.5 percent from a rate of 18.0/100,000 in 1997 to 8.2/100,000 in 1999.
- ❖ In any given year between 1989 and 1999, the annual firearm death rates for Arizona teenagers have been higher than their death rates associated with natural causes of death (such as chronic or infectious diseases) combined (**Figure 8**). One of every three deaths among teenagers 15-19 years in 1999 was by firearm (77 out of 277).
- ❖ Sixty-four of every 100 suicide deaths in Arizona (**Table 12**) and sixty-six of every 100 murders (**Table 13**) involved firearms in 1999.
- ❖ In Arizona, the age-adjusted rate of death by firearms in the 1999 period varied from 3.3/100,000 among La Paz County residents to a rate of 24.6 firearm deaths per 100,000 residents of Mohave County (**Figure 13**).
- ❖ Nationally, among the 50 states and the District of Columbia mortality rates for firearm-suicide ranged from a zero (no fatalities) in Delaware to 18.4 per 100,000 adolescents 15-19 years old in Alaska. Arizona ranked sixth highest in the nation (**Figure 14**).
- ❖ Mortality rates for firearm-homicide ranged from a zero (no fatalities) in Maine, New Hampshire and Vermont to 100.9 per 100,000 persons 15-19 years old in the District of Columbia. Arizona ranked eight highest (**Figure 15**) among the 50 states and the District of Columbia.

FIGURES

Figure 1
Age Adjusted Firearm-Related Death Rates* by Year,
Arizona and United States, 1989-1999



*Number of firearm-related deaths per 100,000 population (age-adjusted to 1940 standard).

Figure 2
Number of Firearm-Related Deaths by Cause
Among Arizona Residents, 1999

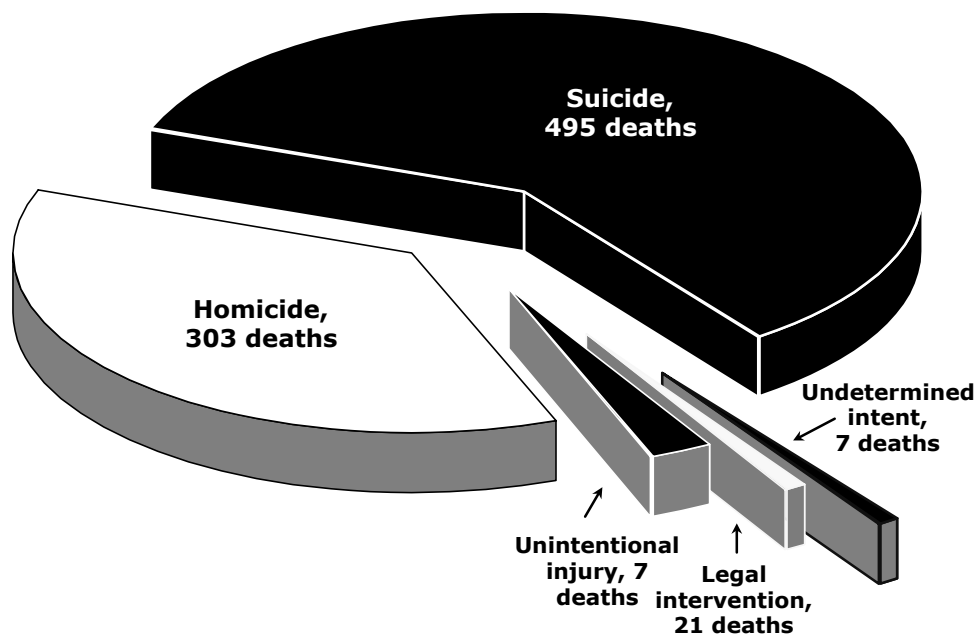
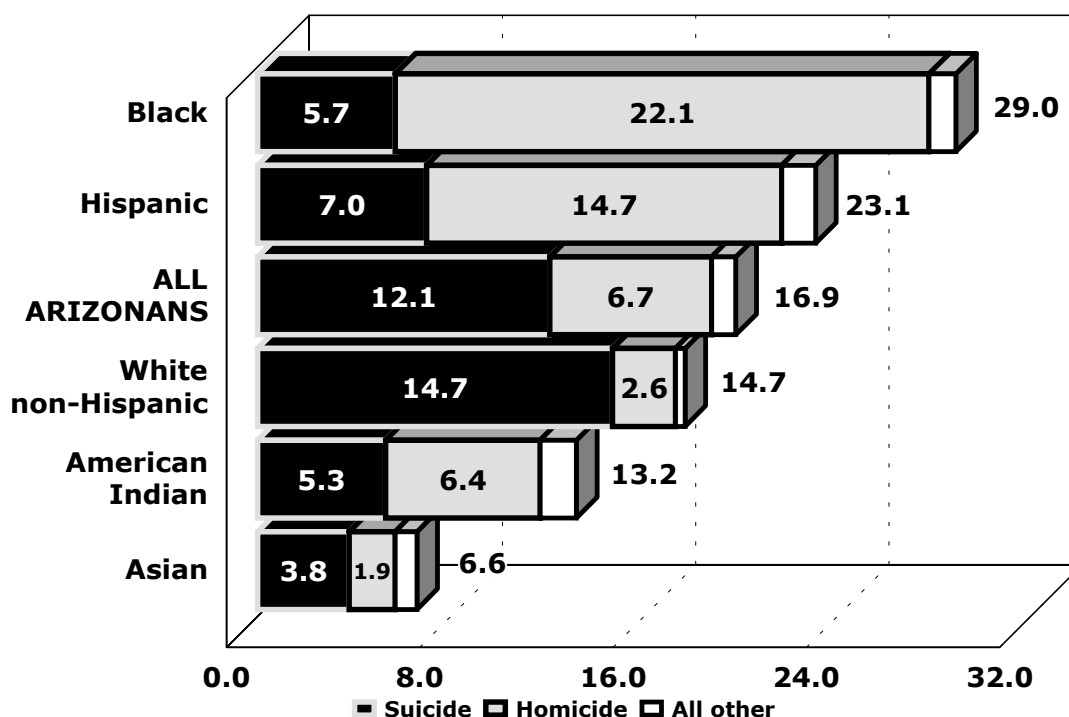


Figure 3
Firearm-Related Death Rates* by Ethnic Group and Cause, Arizona, 1999



*Number of firearm-related deaths per 100,000 persons in specified group (unadjusted for differences in the age composition).

Figure 4
Percent Firearm-Related Fatalities in Each Ethnic Group Attributed to Self-Inflicted Injuries in Suicide and Injuries Purposely Inflicted by Other Person in Homicide, Arizona, 1999

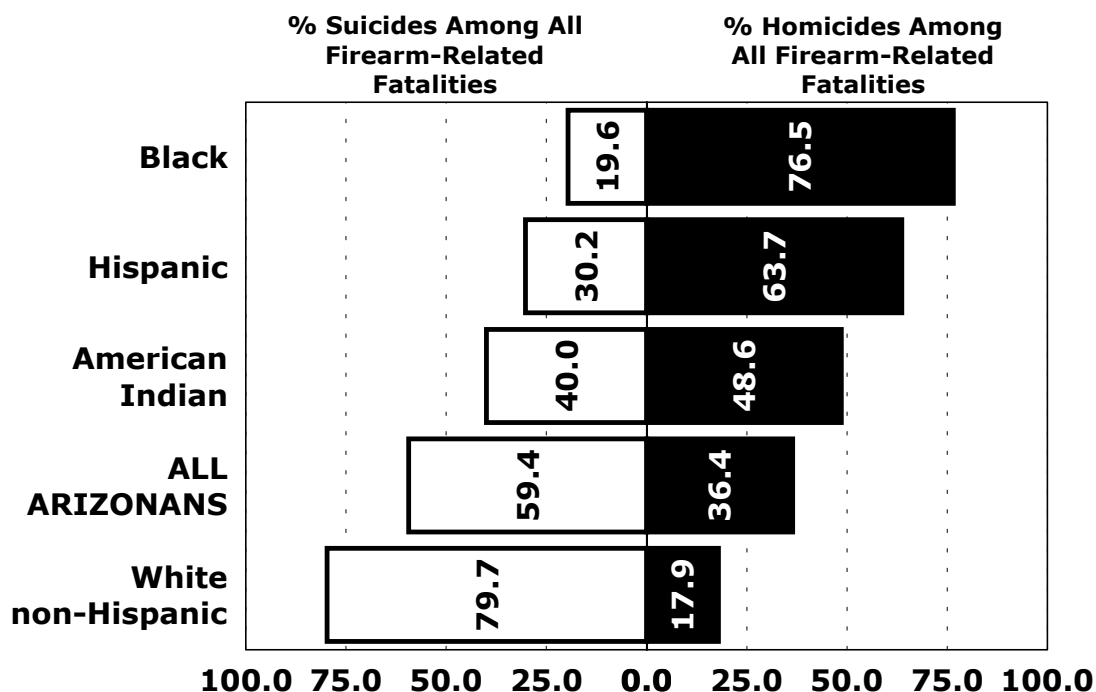


Figure 5
Rates of Firearm-Related Fatalities by Gender and Year,
Arizona, 1989-1999

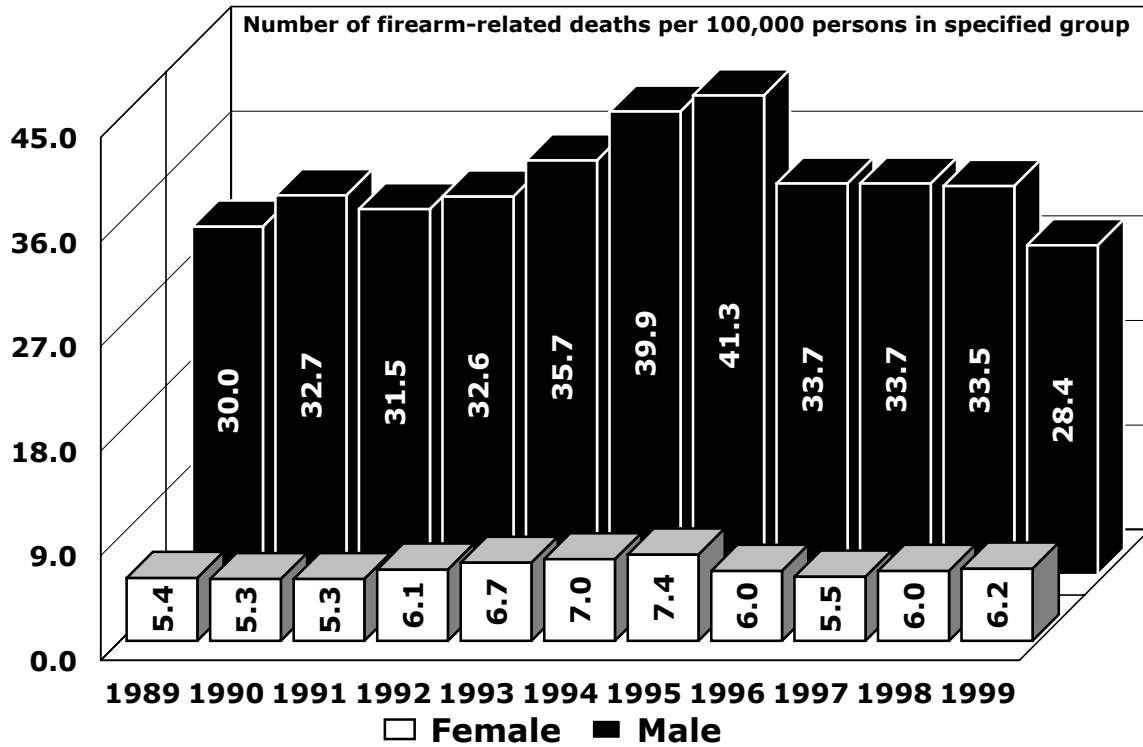


Figure 6
Rates of Firearm-Homicides and Firearm-Suicides by Year,
Arizona, 1989-1999

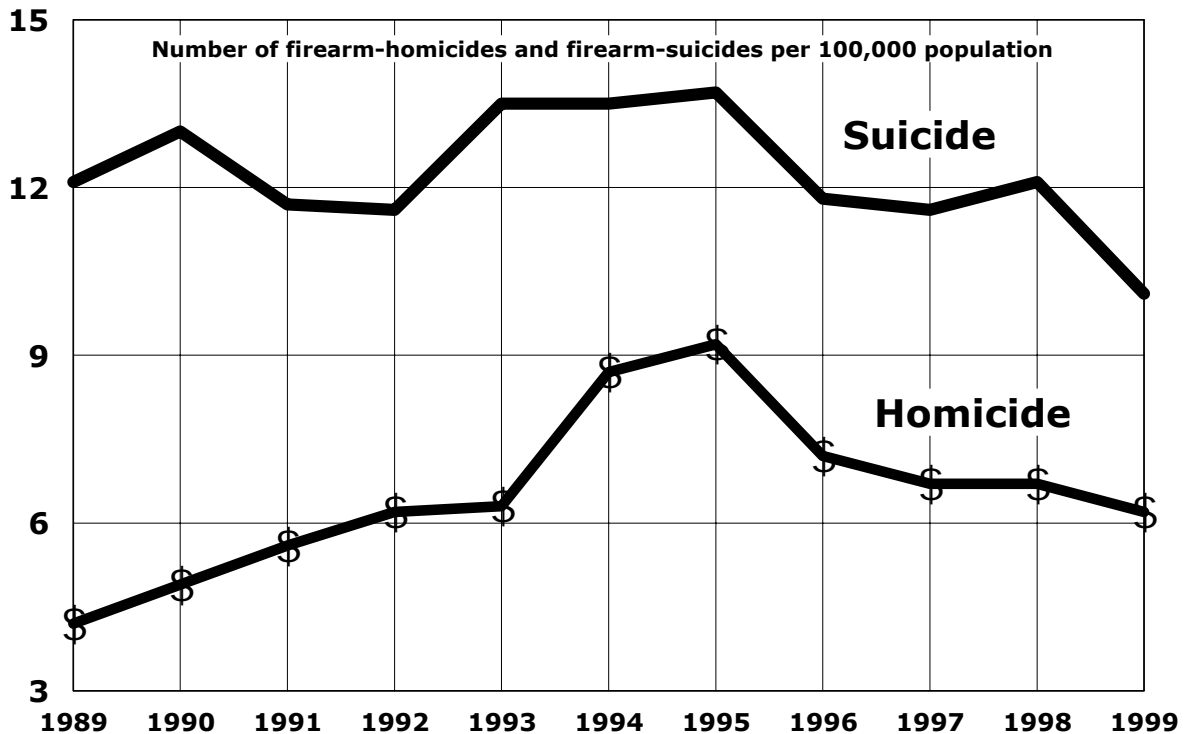


Figure 7
Firearm-Homicides and Firearm-Suicides Among
Adolescents 15-19 Years Old, Arizona, 1989-1999

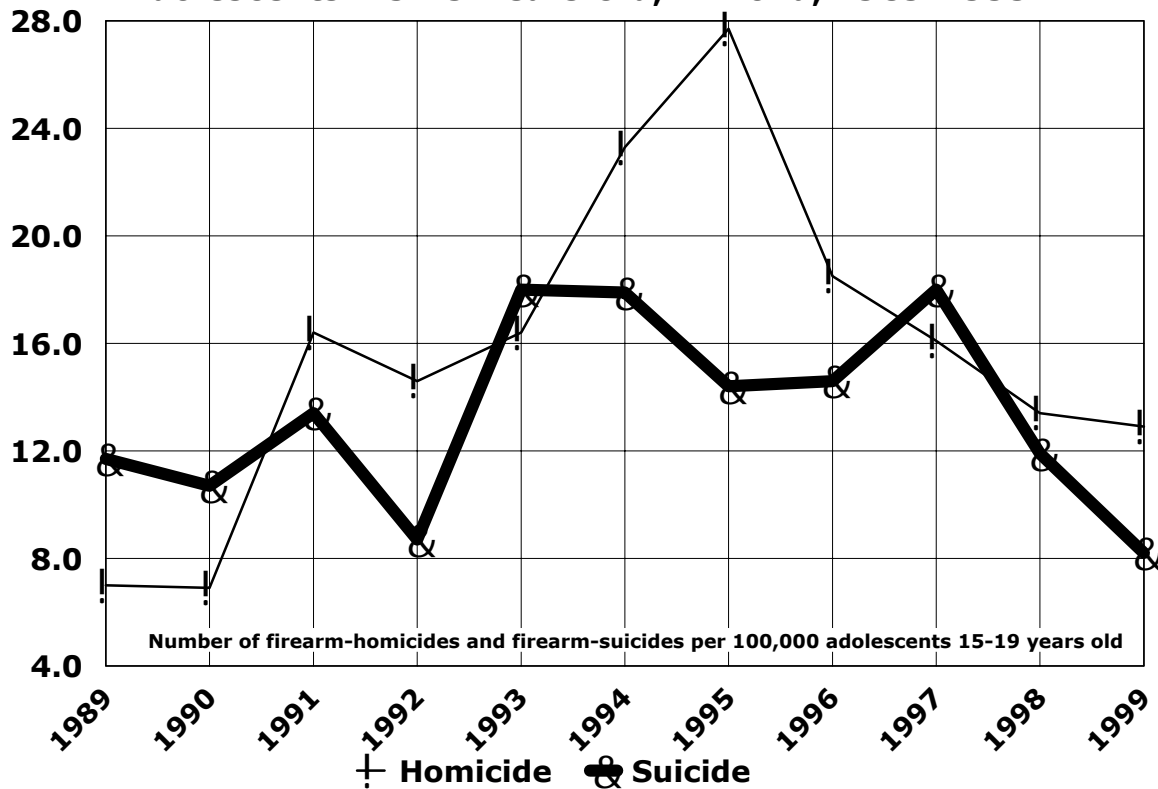


Figure 8
Mortality Rates For Natural Causes of Death and Firearm-
Related Injuries Among Adolescents 15-19 Years Old,
Arizona, 1989-1999

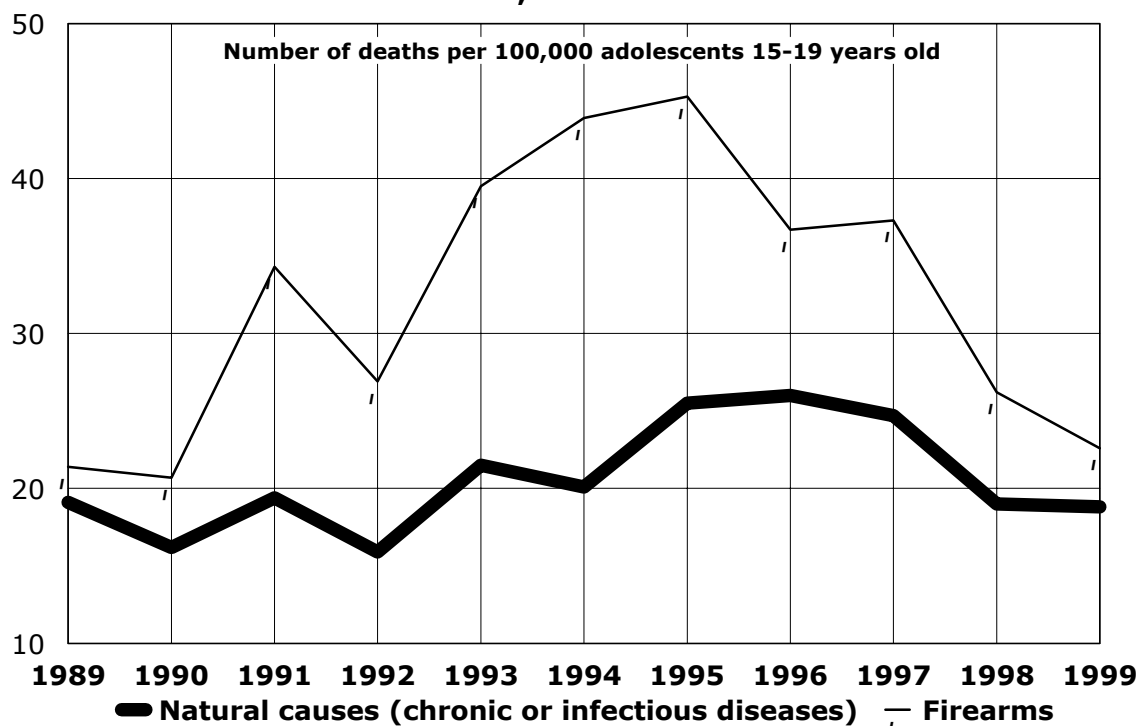
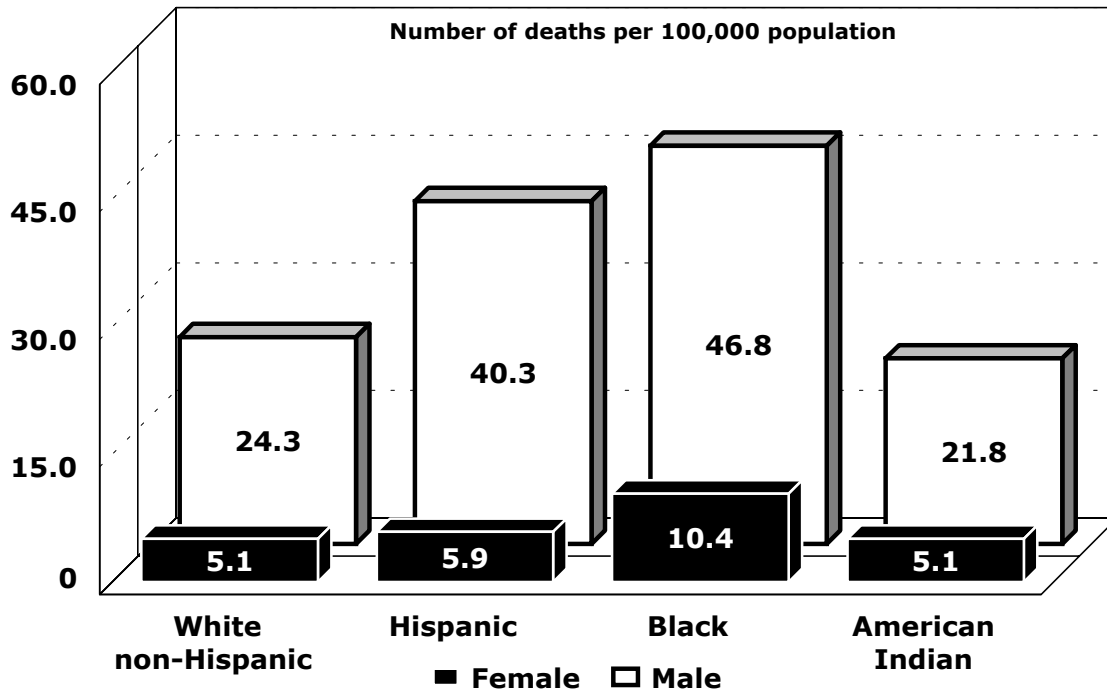


Figure 9
Firearm-Related Death Rates by Gender and Ethnicity,*
Arizona, 1999



*The gender-specific mortality rates for Asians do not meet standards of reliability and precision. There were only 7 firearm-related deaths among Asians in 1999.

Figure 10
Firearm-Related Death Rates by Age Group and Gender,
Arizona, 1999

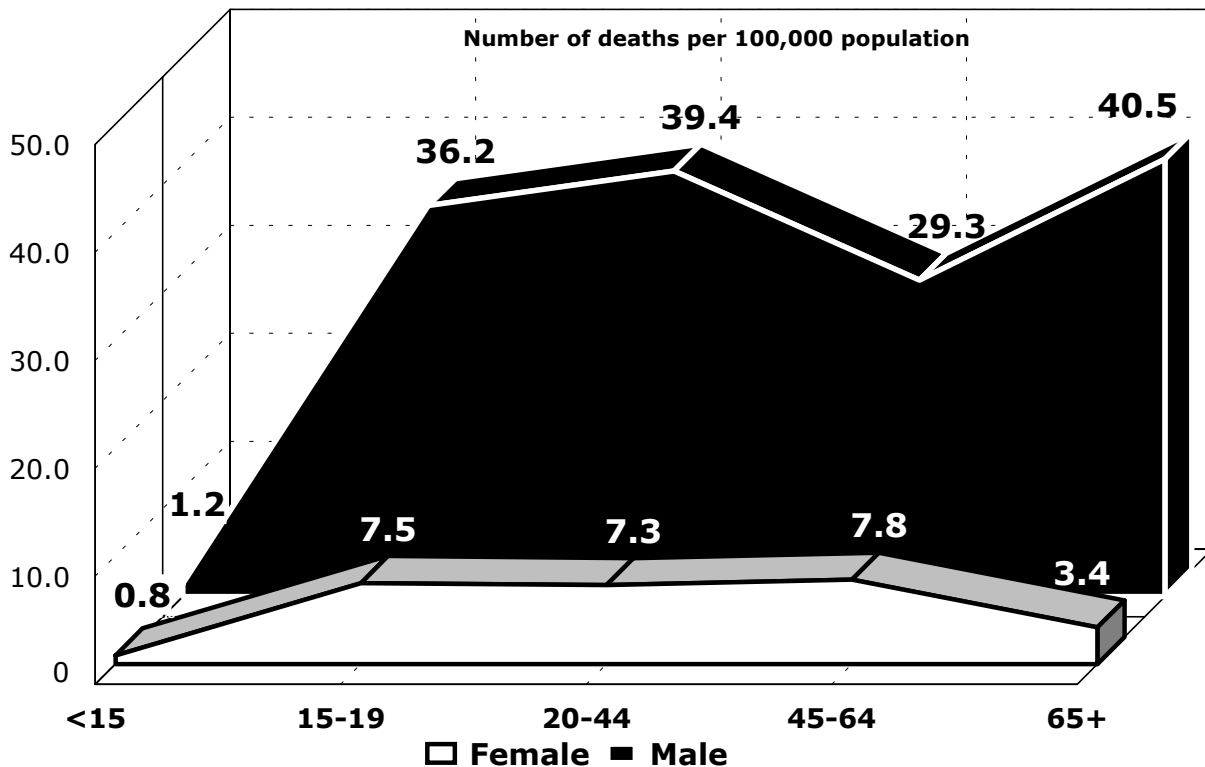


Figure 11
Firearm Related Death Rates Associated with
Homicide Among Adolescents 15-19 Years Old,
Arizona 1989-1999 and United States 1989-1998*

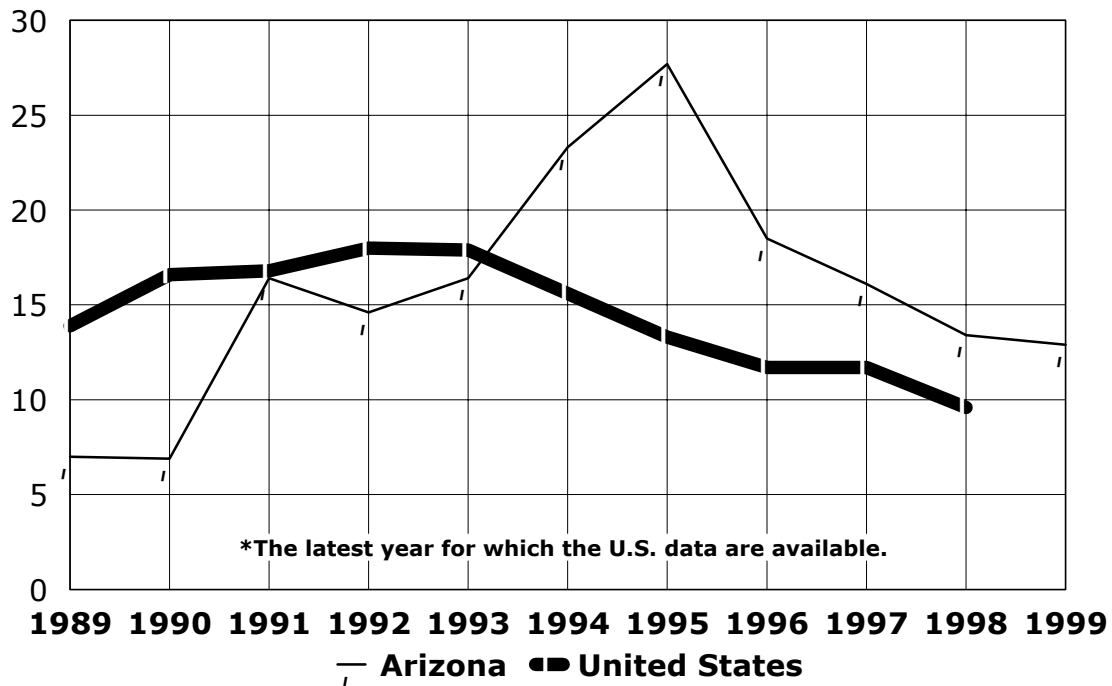


Figure 12
Firearm Related Death Rates Associated with
Suicide Among Adolescents 15-19 Years Old,
Arizona 1989-1999 and United States 1989-1998*

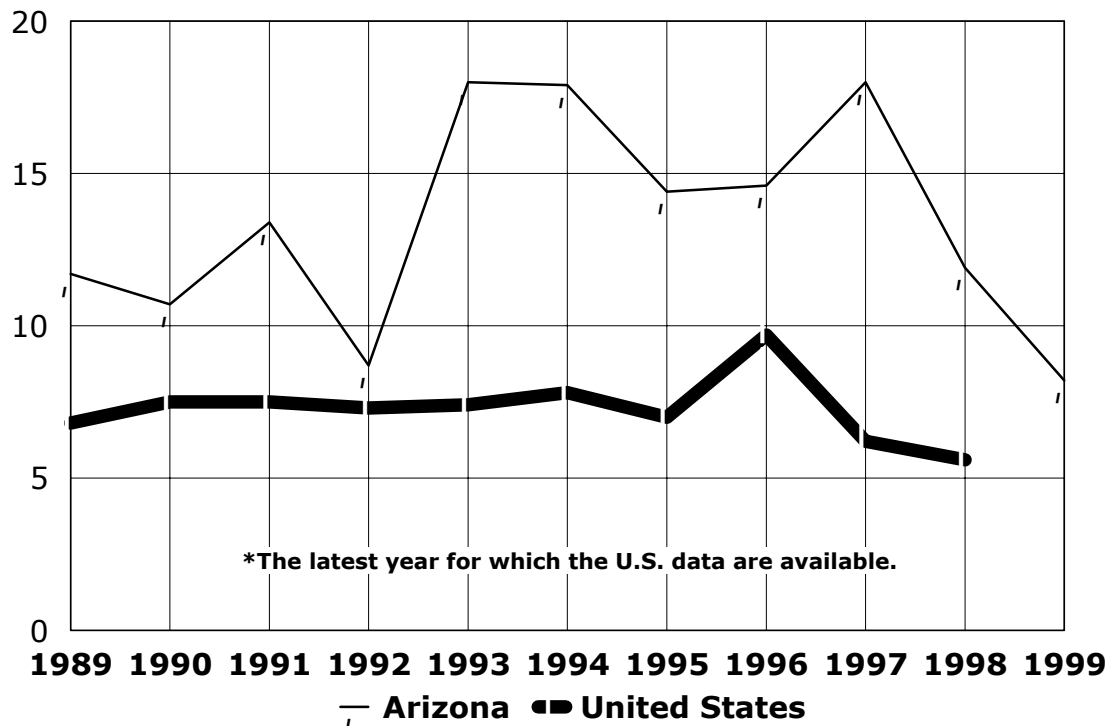
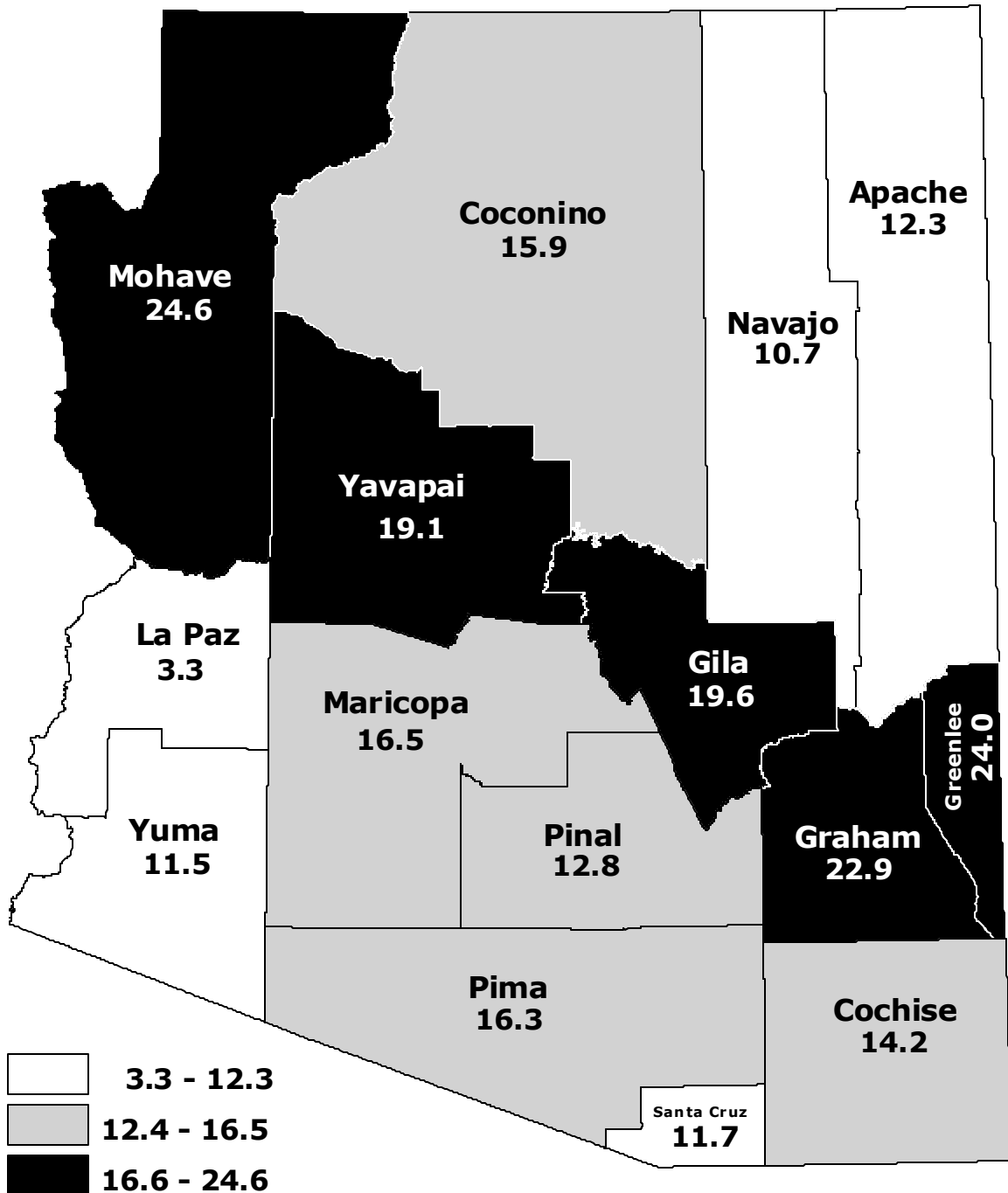


Figure 13
Firearm-Related Deaths
by County of Residence, Arizona, 1999

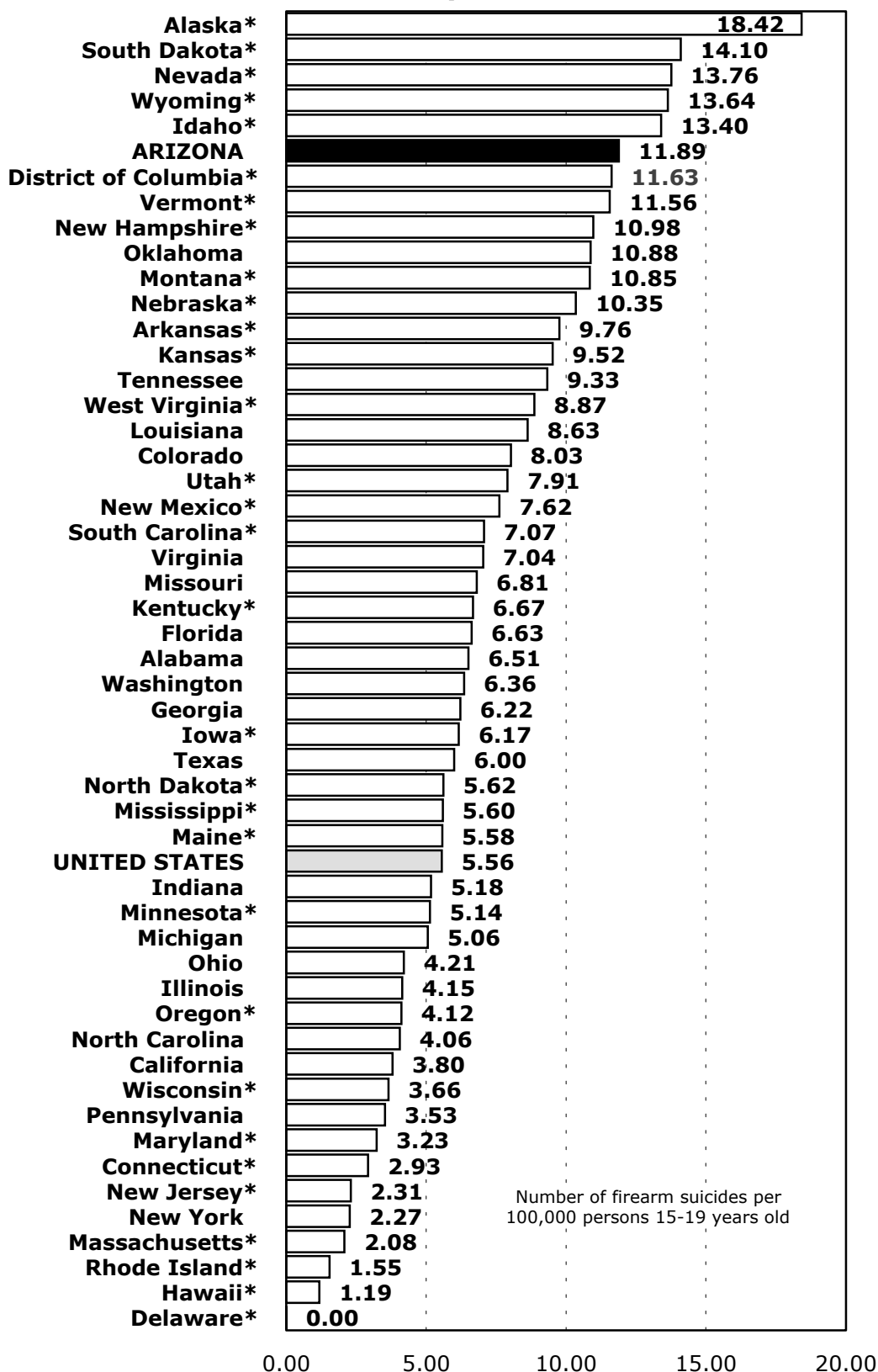


NUMBER OF DEATHS PER 100,000 POPULATION (age-adjusted)

ARIZONA RATE = 16.7

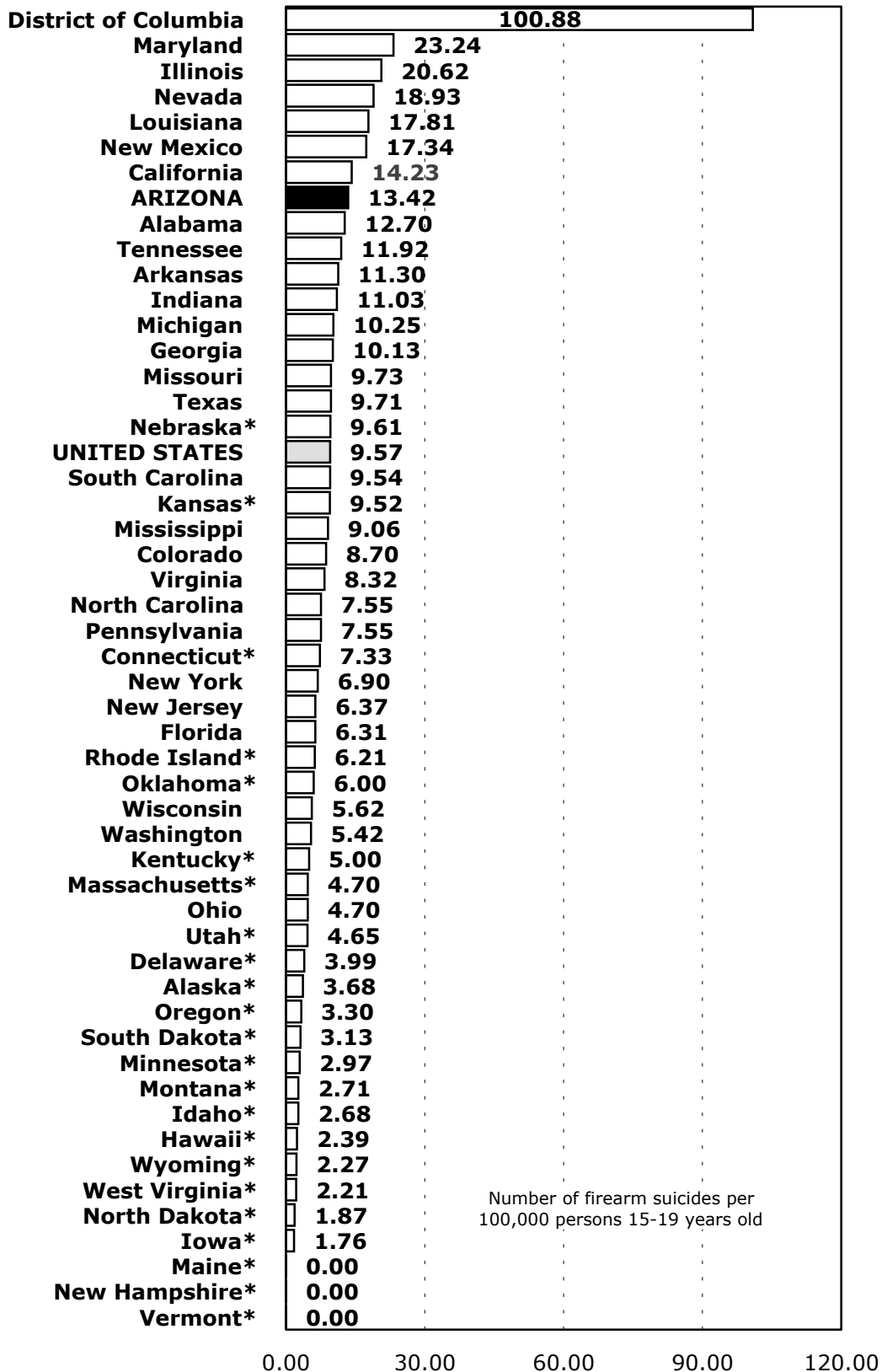
ARIZONA 2000 OBJECTIVE = 14.0

Figure 14
Death Rates for Firearm-Suicides Among Adolescents
15-19 Years Old by State in 1998¹



¹ This is the latest year for which the data are available by state. All rates except those for Arizona are from the Injury Mortality Dataset available at: <http://www.cdc.gov/ncipc/wisqars/>
 * Rates based on 20 or fewer deaths may be unstable. Use with caution.

Figure 15
Death Rates for Firearm-Homicides Among Adolescents
15-19 Years Old by State in 1998¹



¹ This is the latest year for which the data are available by state. All rates except those for Arizona are from the Injury Mortality Dataset available at: <http://www.cdc.gov/ncipc/wisqars/>

* Rates based on 20 or fewer deaths may be unstable. Use with caution.

DATA TABLES

Table 1
Age-Specific and Age-Adjusted Death Rates^a for Injury by Firearms,
Arizona and the United States, 1989-1999

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Under 5^b	1.2	.3	.7	1.0	0.3	1.2	0.9	0.6	0.0	.0.9	0.3
5-14	2.3	1.9	2.0	4.8	5.3	2.5	4.1	2.4	2.2	2.7	1.1
15-19	21.4	20.7	34.3	26.9	39.5	43.9	45.3	36.7	37.3	26.2	22.6
20-44	22.2	25.8	22.9	24.0	28.1	34.0	35.4	28.7	29.0	29.5	23.7
45-64	20.0	20.2	18.9	21.2	17.8	20.7	19.5	17.8	16.4	18.7	18.2
65 and Over	28.1	24.9	23.6	23.8	26.9	22.7	23.9	19.3	19.1	20.4	19.9
Total	17.5	18.9	18.3	19.2	21.1	23.3	24.1	19.8	19.6	19.8	16.9
Arizona Age-Adjusted Rate^c	17.1	18.3	17.9	18.7	21.0	24.0	24.4	20.1	19.5	20.0	16.7
U.S. Age-Adjusted Rate^c	13.7	14.6	15.2	14.9	15.7	15.4	13.9	13.0	11.9	10.9	NA

^a Number of deaths by firearms per 100,000 population in specified age group.

^b 0-4 years old.

^c Adjusted to U.S. population of 1940.

Table 2
Number of Firearm-Related Fatalities by Cause, Age Group and Year, Arizona, 1989-1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<5	Unintentional Injury	1	0	1	1	1	2	0	0	0	1	0
	Homicide	3	1	1	2	0	2	3	1	2	1	1
	Undetermined	0	0	0	0	0	0	0	1	0	0	0
	Total	4	1	2	3	1	4	3	2	2	3	1
5-14	Unintentional Injury	4	2	3	5	8	3	6	2	4	2	0
	Suicide	3	0	5	6	9	4	7	4	3	5	4
	Homicide	5	7	2	16	13	4	11	10	6	10	4
	Legal Intervention	0	0	0	0	0	0	0	0	0	1	0
	Undetermined	1	1	1	0	1	4	1	0	0	1	0
	Total	13	10	11	27	31	15	25	16	13	19	8
15-19	Unintentional Injury	7	7	5	8	10	2	4	4	2	2	0
	Suicide	30	28	36	24	46	47	40	45	57	39	28
	Homicide	15	18	44	40	42	61	77	57	51	44	44
	Legal Intervention	3	0	1	1	0	1	4	3	4	0	4
	Undetermined	0	1	6	1	3	4	1	4	4	1	1
	Total	55	54	92	74	101	115	126	113	118	86	77
20-44	Unintentional Injury	13	8	7	12	13	10	18	6	6	10	7
	Suicide	198	235	190	197	247	284	277	255	258	256	198
	Homicide	101	119	133	137	160	224	241	205	212	229	204
	Legal Intervention	10	10	5	15	7	7	10	11	14	12	15
	Undetermined	2	1	4	4	6	6	9	3	7	6	5
	Total	324	373	339	365	433	531	555	480	497	513	429
45-64	Unintentional Injury	1	1	3	0	1	4	0	0	4	1	0
	Suicide	96	100	103	110	104	109	114	110	105	141	141
	Homicide	27	27	20	36	18	36	38	38	33	26	38
	Legal Intervention	0	2	0	2	2	1	3	2	3	4	1
	Undetermined	3	1	0	0	1	2	0	1	1	3	0
	Total	127	131	126	148	126	152	155	151	146	175	180
65 and Over	Unintentional Injury	0	0	0	3	0	1	0	0	1	0	0
	Suicide	122	113	104	112	126	100	132	111	113	128	123
	Homicide	6	6	12	5	13	19	8	8	6	6	12
	Legal Intervention	0	0	0	0	0	0	0	0	0	0	1
	Undetermined	0	0	0	0	0	0	0	0	2	1	1
	Total	128	119	116	120	139	120	140	119	122	135	137
Unknown	Suicide	0	1	1	0	0	0	1	2	1	1	1
	Homicide	1	2	0	2	1	3	5	1	0	2	0
	Undetermined	1	0	0	0	0	0	0	0	0	0	0
	Total	2	3	1	2	1	3	6	3	1	3	1
Total	Unintentional Injury	26	18	19	29	33	22	28	12	17	16	7
	Suicide	449	477	439	449	532	544	571	527	537	570	495
	Homicide	158	180	212	238	247	349	383	320	310	318	303
	Legal Intervention	13	12	6	18	9	9	17	16	21	17	21
	Undetermined	7	4	11	5	11	16	11	9	14	12	7
	Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 3
Number of Firearm-Related Fatalities by Type of Firearm and Year, Arizona, 1989-1999

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Hand Gun	203	233	278	244	207	186	208	149	167	210	146
Shotgun	45	40	47	48	41	38	49	66	57	68	34
Hunting Rifle	24	28	29	27	12	30	29	21	29	29	20
Military Firearm	0	0	2	2	1	1	0	0	1	0	0
Other and Unspecified	381	390	331	418	571	685	724	648	645	626	633
Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 4
Number of Firearm-Related Fatalities by Ethnic Group and Year, Arizona, 1989-1999

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
White non-Hispanic	507	513	470	495	574	585	632	537	550	605	487
Hispanic	91	99	118	157	172	220	266	246	237	222	245
Black	30	39	42	44	45	75	63	46	60	55	51
American Indian	21	34	41	35	35	52	40	51	45	45	35
Asian	3	5	13	7	6	7	5	2	7	5	7
Other/Unknown	1	1	3	1	0	1	4	2	0	1	8
Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 5
Number of Firearm-Related Fatalities by Ethnic Group and Gender by Year,
Arizona, 1989-1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
White non-Hispanic	Male	428	433	400	401	474	487	527	439	449	504	403
	Female	79	80	70	94	100	98	105	98	101	101	84
	Total	507	513	470	495	574	585	632	537	550	605	487
Hispanic	Male	74	89	103	141	151	193	231	228	222	197	214
	Female	17	10	15	16	21	27	35	18	15	25	31
	Total	91	99	118	157	172	220	266	246	237	222	245
Black	Male	26	34	36	39	39	66	56	39	56	47	42
	Female	4	5	6	5	6	9	7	7	4	8	9
	Total	30	39	42	44	45	75	63	46	60	55	51
American Indian	Male	20	32	33	33	30	43	33	40	40	37	28
	Female	1	2	8	2	5	9	7	11	5	8	7
	Total	21	34	41	35	35	52	40	51	45	45	35
Asian	Male	2	3	11	6	4	6	3	2	6	4	5
	Female	1	2	2	1	2	1	2	0	1	1	2
	Total	3	5	13	7	6	7	5	2	7	5	7
Other/Unknown	Male	1	1	3	1	0	1	4	2	0	1	7
	Female	0	0	0	0	0	0	0	0	0	0	1
	Total	1	1	3	1	0	1	4	2	0	1	8
Total All Groups	Male	551	592	586	621	698	796	854	750	773	790	699
	Female	102	99	101	118	134	144	156	134	126	143	134
	Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 6
Number of Firearm-Related Fatalities by Cause, Age Group and Ethnicity,
Arizona, 1999

		Unintentional Injury	Suicide	Homicide	Legal Intervention	Undetermined	Total
White non-Hispanic	5-14	0	3	1	0	0	4
	15-19	0	15	8	0	0	23
	20-44	3	139	48	6	2	198
	45-64	0	121	21	0	0	142
	65 and Over	0	110	9	0	1	120
	Total	3	388	87	6	3	487
Hispanic	<5	0	0	1	0	0	1
	5-14	0	1	3	0	0	4
	15-19	0	10	26	3	1	40
	20-44	2	43	116	6	1	168
	45-64	0	12	9	1	0	22
	65 and Over	0	7	1	1	0	9
	Unknown	0	1	0	0	0	1
	Total	2	74	156	11	2	245
Black	15-19	0	0	7	0	0	7
	20-44	0	6	27	1	1	35
	45-64	0	1	4	0	0	5
	65 and Over	0	3	1	0	0	4
	Total	0	10	39	1	1	51
American Indian	15-19	0	3	2	1	0	6
	20-44	1	7	11	1	1	21
	45-64	0	3	3	0	0	6
	65 and Over	0	1	1	0	0	2
	Total	1	14	17	2	1	35
Asian	15-19	0	0	1	0	0	1
	20-44	1	2	1	0	0	4
	45-64	0	2	0	0	0	2
	Total	1	4	2	0	0	7
Other/Unknown	20-44	0	1	1	1	0	3
	45-64	0	2	1	0	0	3
	65 and Over	0	2	0	0	0	2
	Total	0	5	2	1	0	8
Total all groups	<5	0	0	1	0	0	1
	5-14	0	4	4	0	0	8
	15-19	0	28	44	4	1	77
	20-44	7	198	204	15	5	429
	45-64	0	141	38	1	0	180
	65+	0	123	12	1	1	137
	Unknown	0	1	0	0	0	1
	Total	7	495	303	21	7	833

Table 7
Number of Firearm-Related Fatalities by Cause and Gender by Year,
Arizona, 1989-1999

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Male	Unintentional Injury	22	17	16	28	27	21	27	12	14	14	7
	Suicide	387	415	385	383	459	467	480	450	463	491	430
	Homicide	123	147	169	189	194	285	321	263	268	259	234
	Legal Intervention	13	9	6	16	8	9	17	16	18	16	21
	Undetermined	6	4	10	5	10	14	9	9	10	10	7
	Total	551	592	586	621	698	796	854	750	773	790	699
Female	Unintentional Injury	4	1	3	1	6	1	1	0	3	2	0
	Suicide	62	62	54	66	73	77	91	77	74	79	65
	Homicide	35	33	43	49	53	64	62	57	42	59	69
	Legal Intervention	0	3	0	2	1	0	0	0	3	1	0
	Undetermined	1	0	1	0	1	2	2	0	4	2	0
	Total	102	99	101	118	134	144	156	134	126	143	134
Total	Unintentional Injury	26	18	19	29	33	22	28	12	17	16	7
	Suicide	449	477	439	449	532	544	571	527	537	570	495
	Homicide	158	180	212	238	247	349	383	320	310	318	303
	Legal Intervention	13	12	6	18	9	9	17	16	21	17	21
	Undetermined	7	4	11	5	11	16	11	9	14	12	7
	Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 8
Number of Deaths by Firearms and Rate^a of Firearm-Related
Fatalities by Gender and Age Group, Arizona, 1999

Age Group	Male		Female		Total	
	Number	Rate	Number	Rate	Number	Rate
<5	1	2.6	0	0.0	1	1.3
5-14	6	0.8	4	0.8	8	0.8
15-19	65	36.2	12	7.5	77	22.6
20-44	354	39.4	63	7.3	429	23.7
45-64	140	29.3	40	7.8	180	18.2
65 and Over	124	40.5	13	3.4	137	19.9
Unknown	1	NA	0	NA	1	NA
Total	689	28.4	132	6.2	833	16.9

^a Number of firearm-related fatalities per 100,000 population in specified group.

Table 9
Number of Deaths by Firearms by Cause, Age Group and Rates^a of
Firearm-Related Fatalities in Urban^b and Rural Areas, Arizona, 1999

		Unintentional injury	Suicide	Homicide	Legal intervention	Undetermined	Total
Urban	<5	0	0	1	0	0	1
	5-14	0	2	4	0	0	6
	15-19	0	18	41	4	1	64
	20-44	5	158	190	12	3	368
	45-64	0	96	29	1	0	126
	65 and Over	0	86	5	1	1	93
	Unknown	0	1	0	0	0	1
	Total	5	361	270	18	5	659
	Rate	.1	8.9	6.6	.4	.1	16.2
Rural	5-14	0	2	0	0	0	2
	15-19	0	10	3	0	0	13
	20-44	2	32	10	3	2	49
	45-64	0	45	9	0	0	54
	65 and Over	0	37	7	0	0	44
	Total	2	126	29	3	2	162
	Rate	.3	16.4	3.8	.4	.3	21.1
Total	<5	0	0	1	0	0	1
	5-14	0	4	4	0	0	8
	15-19	0	28	44	4	1	77
	20-44	7	198	204	15	5	429
	45-64	0	141	38	1	0	180
	65 and Over	0	123	12	1	1	137
	Unknown	0	1	0	0	0	1
	Total	7	495	303	21	7	833
Rate		.1	10.1	6.2	.4	.1	16.9

^a Number of firearm-related deaths per 100,000 population in specified county.

^b Maricopa, Pima, Pinal and Yuma counties. The remaining counties comprise Arizona's rural areas.

Table 10
Rate^a of Firearm-Related Deaths By County Of Residence And Year,
Arizona, 1989-1999

County	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Apache	12.1	11.4	19.2	14.3	6.2	6.1	12.5	27.9	26.0	15.1	10.5
Cochise	10.5	18.4	23.2	18.8	18.5	34.6	22.8	10.5	15.4	21.1	15.3
Coconino	13.3	9.3	10.1	12.8	14.5	17.9	21.0	19.4	12.1	19.3	16.3
Gila	31.7	32.3	9.9	31.2	30.9	25.9	38.4	26.5	21.6	23.4	21.9
Graham	12.0	3.8	11.1	18.1	21.3	17.5	22.3	6.4	12.4	15.0	25.2
Greenlee	--	--	--	24.0	11.8	23.4	35.3	23.1	22.9	22.5	21.7
La Paz	76.1	36.1	42.8	33.7	33.2	32.7	24.2	38.5	31.9	5.2	10.4
Maricopa	17.2	18.9	17.3	18.3	20.8	22.0	24.6	18.8	18.4	18.6	16.3
Mohave	23.9	34.2	28.3	36.9	33.9	31.0	28.5	20.4	18.8	22.5	26.6
Navajo	16.4	16.7	15.2	17.4	22.0	19.3	19.3	17.8	23.4	18.5	9.6
Pima	16.6	17.1	18.6	18.4	19.7	19.5	20.4	18.2	18.8	19.6	17.3
Pinal	16.8	30.9	33.6	21.2	19.2	27.6	23.5	28.5	19.5	26.1	13.3
Santa Cruz	9.7	3.4	19.4	19.3	9.4	18.4	12.1	8.9	13.9	10.9	10.2
Yavapai	33.7	30.6	20.5	25.4	24.7	29.9	28.2	20.7	25.1	25.0	26.3
Yuma	17.1	7.5	13.5	12.4	11.3	21.2	16.3	10.4	14.0	13.7	12.2
ARIZONA	17.5	18.9	18.5	19.2	21.1	23.3	24.1	19.8	19.6	19.8	16.9

^a Number of firearm-related fatalities per 100,000 population in specified group.

Table 11
Number of Deaths by Firearms by County of Residence and Year,
Arizona, 1989-1999

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Apache	8	7	12	9	4	4	8	18	17	10	7
Cochise	11	18	23	19	19	36	25	12	18	25	19
Coconino	13	9	10	13	15	19	23	22	14	23	20
Gila	13	13	4	13	13	11	17	12	10	11	11
Graham	3	1	3	5	6	5	7	2	4	5	9
Greenlee	0	0	0	2	1	2	3	2	2	2	2
La Paz	11	5	6	5	5	5	4	7	6	1	2
Maricopa	371	401	378	409	475	515	597	496	501	521	474
Mohave	20	32	28	39	37	35	36	26	25	31	38
Navajo	13	13	12	14	18	16	16	15	20	16	9
Pima	118	114	127	129	141	143	152	142	150	160	146
Pinal	19	36	40	26	24	35	32	41	29	40	22
Santa Cruz	3	1	6	6	3	6	4	3	5	4	4
Yavapai	34	33	23	29	29	36	36	28	35	36	41
Yuma	16	8	15	14	13	25	20	13	18	18	17
Unknown	0	0	0	7	29	47	30	45	45	30	12
Total	653	691	687	739	832	940	1,010	884	899	933	833

Table 12
Number of Suicides by Firearms and Total Suicides by Age Group and Year,
Arizona 1989-1999

Age Group	Cause	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
5-14	All Suicides	3	4	6	10	11	9	11	7	7	12	7
	# by Firearms	3	0	5	6	9	4	7	4	3	5	4
15-19	All Suicides	48	42	49	34	58	62	52	56	75	50	36
	# by Firearms	30	28	36	24	46	47	40	45	57	39	28
20-44	All Suicides	328	346	299	318	378	439	454	392	413	425	350
	# by Firearms	198	235	190	197	247	284	277	255	258	256	198
45-64	All Suicides	134	149	158	149	157	165	170	161	160	201	219
	# by Firearms	96	100	103	110	104	109	114	110	105	141	141
65 and Over	All Suicides	156	150	144	148	151	141	170	144	154	156	160
	# by Firearms	122	113	104	112	126	100	132	111	113	128	123
All Ages^a	Total Suicides	669	692	658	660	755	816	858	762	810	845	773
	# by Firearms	449	477	439	449	532	544	571	527	537	569	495
	% by Firearms	67.1	68.9	66.7	68.0	70.5	66.7	66.6	69.2	65.1	67.3	64.0

^a Includes records with unknown or unspecified age.

Table 13
Number of Homicides by Firearms and Total Homicides by Age Group and Year,
Arizona, 1989-1999

Age Group	Cause	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Under 5	All Homicides	18	14	10	18	12	22	19	12	9	13	12
	# By Firearms	3	1	1	2	0	2	3	1	0	1	1
5-14	All Homicides	6	9	5	18	15	7	15	18	10	16	5
	# by Firearms	5	7	2	16	13	4	11	10	8	10	4
15-19	All Homicides	27	28	51	51	61	73	93	75	60	55	55
	# by Firearms	15	18	44	40	42	61	77	57	51	44	44
20-44	All Homicides	197	191	209	216	247	299	334	290	305	313	293
	# by Firearms	101	119	133	137	160	224	241	205	212	229	204
45-64	All Homicides	54	47	43	52	38	54	62	62	62	54	68
	# by Firearms	27	27	20	36	18	36	38	38	33	26	38
65 and Over	All Homicides	22	21	22	12	23	27	19	17	21	13	22
	# by Firearms	6	6	12	5	13	19	8	8	6	6	12
All Ages^a	Total Homicides	327	314	340	370	398	486	548	476	468	468	457
	# by Firearms	158	180	212	238	247	349	383	320	310	318	303
	% by Firearms	48.3	57.3	62.4	64.3	62.1	71.8	69.9	67.2	66.2	67.9	66.3

^a May include records with unknown or unspecified age.

Table 14
Number of Firearm-Related Unintentional Fatalities and All Unintentional Injury Deaths by Age Group and Year, Arizona, 1989-1999

Age Group	Cause	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Under 5	All Unintentional Injury Deaths	99	73	86	88	84	98	88	87	80	83	75
	# Firearm-related	1	0	2	1	1	2	0	0	0	1	0
5-14	All Unintentional Injury Deaths	73	66	61	62	78	61	87	76	83	56	50
	# Firearm-related	4	2	3	5	8	3	6	2	4	2	0
15-19	All Unintentional Injury Deaths	137	124	108	107	125	115	147	142	114	131	122
	# Firearm-related	7	7	5	8	10	2	4	4	2	2	0
20-44	All Unintentional Injury Deaths	633	662	585	653	693	811	877	899	875	908	858
	# Firearm-related	13	8	7	12	13	10	18	6	6	10	7
45-64	All Unintentional Injury Deaths	242	264	226	239	266	327	319	348	380	412	469
	# Firearm-related	1	1	3	0	1	4	0	0	4	1	0
65 and Over	All Unintentional Injury Deaths	322	346	358	417	438	464	451	523	560	577	603
	# Firearm-related	0	0	0	3	0	1	0	0	1	0	0
All Ages^a	Total Unintentional Injury Deaths	1,512	1,539	1,426	1,572	1,686	1,879	1,973	2,092	2,106	2,182	2,192
	# Firearm-related	26	18	19	29	33	22	28	12	17	16	7
	% Firearm-related	1.7	1.2	1.3	1.8	2.0	1.2	1.4	0.6	0.8	0.9	0.3

^a May include records with unknown or unspecified age.

Table 15
Firearm-Related Death Rates^a Associated With Homicide, Suicide
and Unintentional Injury Among Adolescents 15-19 Years Old,
Arizona 1989-1999 and United States, 1989-1998

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	ARIZONA										
HOMICIDE, total	10.5	10.7	19.0	18.6	23.9	27.9	33.4	24.4	19.0	16.8	16.2
By firearms	7.0	6.9	16.4	14.6	16.4	23.3	27.7	18.5	16.1	13.4	12.9
By all other means	3.5	3.8	2.6	4.0	7.5	4.6	5.7	5.9	2.9	3.4	3.3
SUICIDE, total	18.7	16.1	18.3	12.4	22.7	23.7	18.7	18.2	23.7	15.2	10.6
By firearms	11.7	10.7	13.4	8.7	18.0	17.9	14.4	14.6	18.0	11.9	8.2
By all other means	7.0	5.4	4.9	3.7	4.7	5.8	4.3	3.6	5.7	3.3	2.4
UNINTENTIONAL INJURY, total	53.3	47.5	40.3	39.0	48.9	43.9	52.8	46.1	35.7	39.9	35.8
By firearms	2.7	2.7	1.9	2.9	3.5	0.8	1.4	1.3	0.6	0.6	0.0
By all other means	50.6	44.8	38.4	36.1	45.4	43.1	51.4	44.8	35.1	39.3	35.8
	UNITED STATES^b										
HOMICIDE, total	13.5	17.0	19.6	19.3	20.7	20.1	18.1	15.5	13.6	11.7	NA
By firearms	11.1	13.9	16.6	16.8	18.0	17.9	15.6	13.3	11.7	9.6	NA
By all other means	2.4	3.1	3.0	2.5	2.7	2.2	2.5	2.2	1.9	2.1	NA
SUICIDE, total	11.1	11.1	11.0	10.8	10.9	11.1	10.5	9.7	9.5	8.9	NA
By firearms	6.8	7.5	7.5	7.3	7.4	7.8	7.0	6.2	6.0	5.6	NA
By all other means	4.2	3.6	3.6	3.5	3.5	3.3	3.5	3.5	3.5	3.3	NA

^a Number of deaths per 100,000 persons 15-19 years old.

^b Data for 1989 1993: ***Injury Mortality: National Summary of Injury Mortality Data 1987-1993.***

National Center for Injury Prevention and Control, Center for Disease Control (CDC). June 1996; Data for 1994-1997 are from the CDC WWW site (www.cdc.gov/inquiry/shtml). The data for 1998 are from the National Center for Injury Prevention and Control web site at <http://webapp.cdc.gov/sasweb/ncipc/mortrate.html>. 1998 is the latest year for which the U.S. data are available.

Table 16
Age-Adjusted Firearm Death Rates^a in the United States and
by County of Residence in Arizona, 1989-1991 and 1992-1999

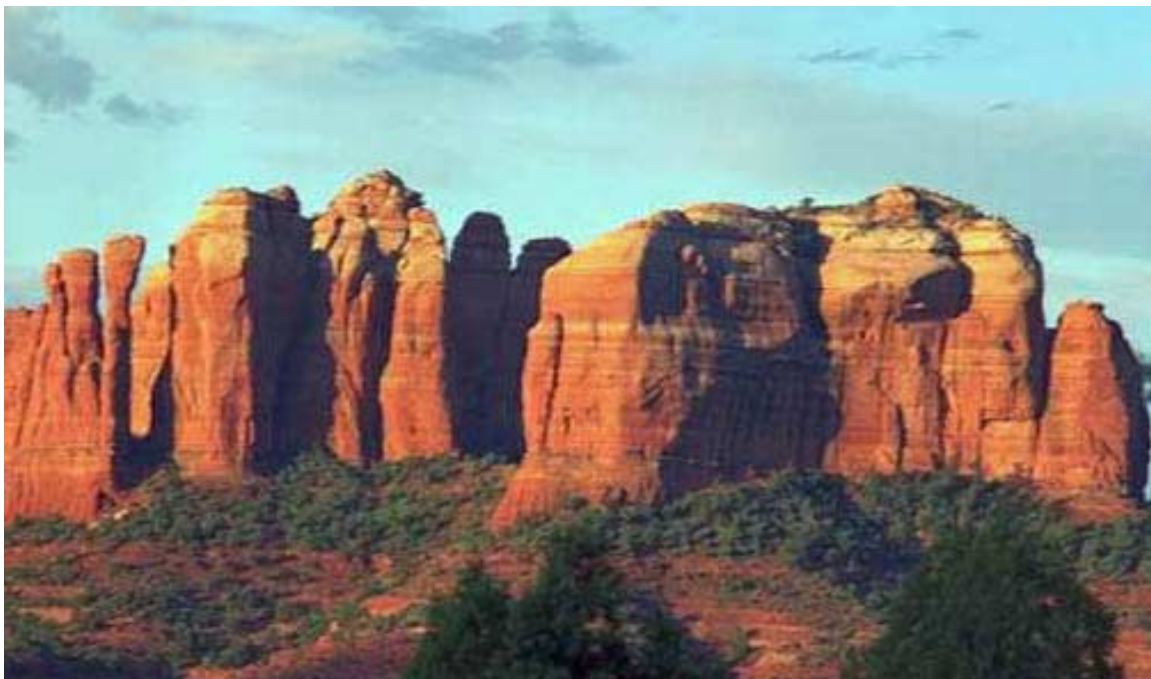
County	1989-1991 ^b	1992	1993	1994	1995	1996	1997	1998	1999
Apache	14.4	15.3	7.4	5.6	13.6	30.0	29.7	18.3	12.3
Cochise	17.5	19.5	18.3	37.2	21.4	10.5	10.4	19.1	14.2
Coconino	10.8	12.5	15.4	18.4	20.7	20.1	19.5	18.9	15.9
Gila	24.7	29.2	28.6	23.8	41.4	34.4	34.2	16.2	19.6
Graham	8.6	16.1	23.8	19.4	21.6	7.1	6.9	13.4	22.9
Greenlee	0.0	31.7	14.2	20.2	29.3	31.9	32.2	29.6	24.0
La Paz	52.3	36.9	26.6	26.8	23.9	37.3	36.2	3.6	3.5
Maricopa	17.6	18.3	21.2	19.0	25.5	19.3	18.7	19.2	16.5
Mohave	27.0	32.6	32.9	31.7	26.2	22.3	21.5	20.2	24.6
Navajo	16.1	18.2	24.7	20.8	22.8	19.8	19.6	20.2	10.7
Pima	17.5	17.0	18.8	19.8	19.7	18.0	17.6	19.2	16.3
Pinal	26.6	20.6	32.8	29.3	23.0	27.8	27.0	28.5	12.8
Santa Cruz	10.8	16.0	7.2	18.5	12.9	8.4	8.1	12.9	11.7
Yavapai	26.8	20.5	19.7	28.7	29.7	19.7	19.0	22.5	19.1
Yuma	11.7	12.1	11.3	17.1	16.2	10.2	10.0	11.7	11.5
ARIZONA	18.3	18.7	21.0	24.0	24.4	20.1	19.5	20.0	16.7
UNITED STATES	14.6	14.9	15.7	15.4	13.9	13.0	11.9	10.9	NA

^a Adjusted to U.S. population of 1940 and presented per 100,000.

^b Average annual rates for 1989-1991.

NA = Not available

Our Web site at <http://www.hs.state.az.us/plan/> provides instantaneous access to a wide range of statistical information about health status and use of health care in Arizona. The *Arizona Health Status and Vital Statistics* annual report examines trends in natality, mortality and morbidity towards established health objectives. Additional data can be found in the special reports and studies focused on differences in the health status by ethnic group, suicide mortality, unintentional injury mortality among children and adolescents, firearm-related fatalities, unintentional drowning deaths, drug-related mortality, teenage pregnancy and abortion practices in Arizona. The *Arizona Monthly Vital Statistics Bulletin* has the most up to date information on births, deaths, marriages and divorces.



Office of Epidemiology and Statistics
Bureau of Public Health Statistics
Public Health Services
ARIZONA DEPARTMENT OF HEALTH SERVICES
